

REFERENCES

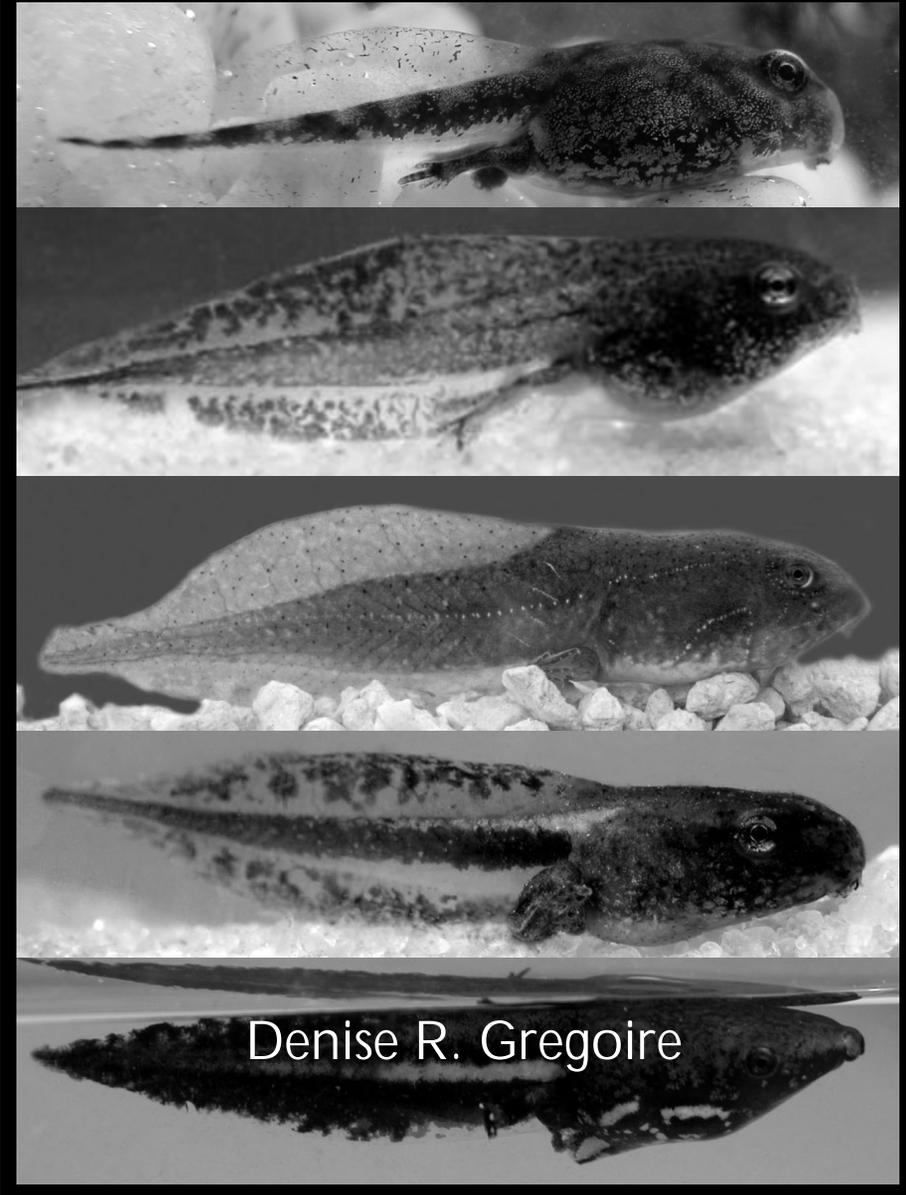
- Altig, R., R. W. McDiarmid, K. A. Nichols, P.C. Ustach. 1998. A Key to the Anuran Tadpoles of the United States and Canada. Contemporary Herpetology Information Series 2:1-58.
- Ashton, R.E., Jr., and P.S. Ashton. 1988. Handbook of Reptiles and Amphibians of Florida. Part III, The Amphibians. Windward Publishing, Miami, FL.
- Bartlett, R.D., and P.P. Bartlett. 1999. A Field Guide to Florida Reptiles and Amphibians. Gulf Publishing, Houston, TX.
- Carr, A.F, Jr. 1940. A Contribution to the Herpetology of Florida. Univ. of Florida Biological Science Series 3(1): 1-118.
- Conant, R., and J.T. Collins. 1998. A Field Guide to Reptiles and Amphibians of Eastern and Central North America. Third Edition Expanded. Houghton Mifflin Company, New York, NY.
- Dodd, C.K., Jr. 2004. The Amphibians of Great Smoky Mountains National Park. Univ. of Tennessee Press, Knoxville, TN.
- McDiarmid, R.W, and R. Altig. 1999. Tadpoles: The Biology of Anuran Larvae. Univ. of Chicago Press, Chicago, IL.
- Nichols, R.J. 1937. Taxonomic Studies on the Mouth Parts of Larval Anura. Illinois Biological Monographs 15(4):1-73.
- Trauth, S.E., H.W. Robison and M. V. Plummer. 2004. The Amphibians and Reptiles of Arkansas. Univ. of Arkansas Press, Fayetteville, AR.
- Wright, A.H. 1929. Synopsis and Description of North American Tadpoles. Proceedings of the United States National Museum 74 (11): 1-70.
- Wright, A.H. 1932. Life Histories of the Frogs of Okefinokee Swamp, Georgia. Cornell Univ. Press, Ithaca, NY. Reprinted in 2002.

WEBSITES

- <http://www.pwrc.usgs.gov/tadpole>
<http://cars.er.usgs.gov/herps/>
<http://wwknapp.home.mindspring.com/GAFrog.Toad.html>
<http://www.wec.ufl.edu/extension/frogs/default.htm>

TADPOLES

OF THE SOUTHEASTERN
UNITED STATES COASTAL PLAIN



This publication was produced by the Southeast Amphibian Research and Monitoring Initiative of the United States Geological Survey.

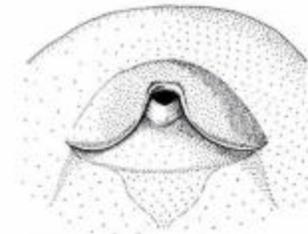


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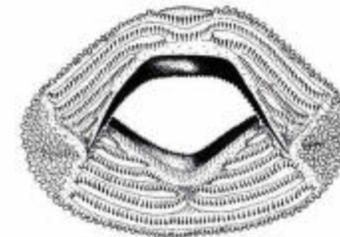
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Micrhyliidae- Narrowmouth Toad



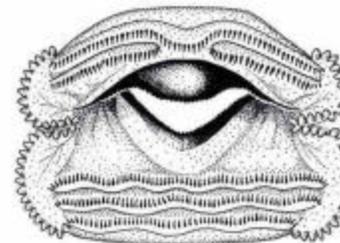
Eastern Narrow mouthed Toad
Gastrophryne carolinensis

Pelobatidae- Spadefoot Toad

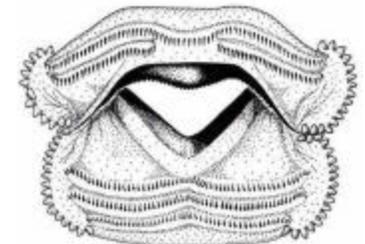


Eastern Spadefoot
Scaphiopus holbrookii

Bufoidea- True Toads

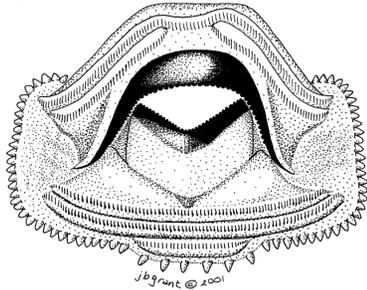


American Toad
Bufo americanus

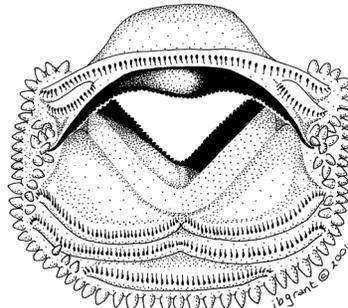


Fowler's Toad
Bufo fowleri

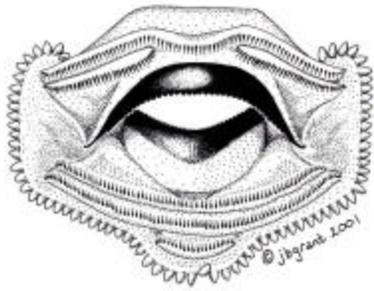
Hylidae-Treefrogs



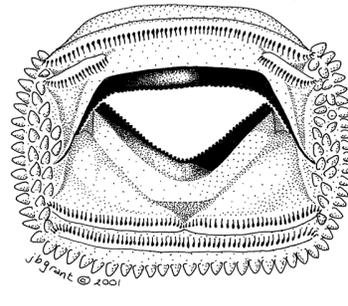
Spring Peeper
Pseudacris crucifer



Cope's Gray Treefrog
Hyla chrysoscelis



Upland Chorus Frog
Pseudacris feiarum



Northern Cricket Frog
Acris crepitans

ACKNOWLEDGEMENTS

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Contributors to this guide include C. Kenneth Dodd, Jr., Lora Smith, Steve Johnson, Margaret Gunzburger, Jamie Barichivich, Jennifer Staiger, Kevin Smith, Kristina Sorensen, Linda Casey, Julia Earl and Jacqueline Grant. Additional photos were provided by Ronald Altig, Wayne VanDevender, and Tom Johnson.

Our cooperators at the United States Fish and Wildlife Service (Russ Webb, Steve Barlow, Deb Barnard-Keinath, Joe Reinman, Mike Keys, Kathy Whaley, John Robinette, Thom Lewis) and the University of Florida (Steve Coates) provided assistance and access to research sites.

Denise Gregoire was supported under an ARMI Research Grant to C. Kenneth Dodd, Jr. during the preparation of this guide.

INTRODUCTION

The intent of this guide is to provide biologists and laypersons with a usable field reference for identifying tadpoles of most of the frog species found in the Southeastern United States Coastal Plain region. Specifically this guide is focused on the 23 species of frogs found at Southeast ARMI inventory and monitoring sites in Georgia, South Carolina, and Florida, including St. Marks, St. Vincent, Lower Suwannee, Cedar Keys, Okefenokee, Harris Neck, and Savannah National Wildlife Refuges and the Katharine Ordway Preserve-Swisher Memorial Sanctuary in Putnam County, Florida.

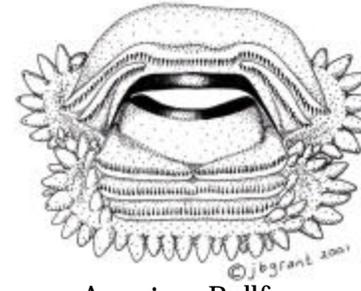


ARMI Biologist Dr. Margaret Gunzburger dip-netting for tadpoles on St. Vincent National Wildlife Refuge.

This guide includes all species of frogs found in the Southeast ARMI region of the continental United States (TN, NC, SC, GA, AL, FL) except those species not found at any of the current ARMI monitoring sites (*Hyla andersonii*, *Pseudacris feriarum*, *Pseudacris brachyphona*, *Pseudacris brimleyi*, *Acris crepitans*, *Rana okaloosae*, *Rana palustris*, *Rana sylvatica*, *Bufo americanus*, *Bufo fowleri*, and the introduced species *Bufo marinus* and *Eleutherodactylus planirostris*).

ILLUSTRATIONS OF MOUTHPARTS OF 12 SPECIES OF TADPOLES

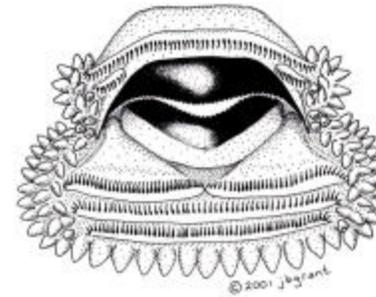
Ranidae-True Frogs



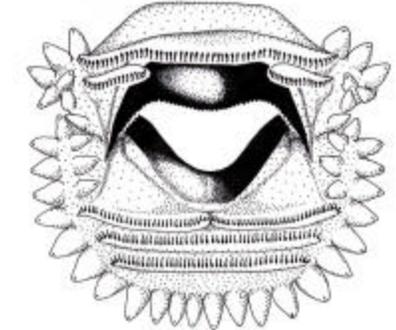
American Bullfrog
Rana catesbeiana



Northern Leopard Frog
Rana pipiens



Bronze Frog
Rana clamitans



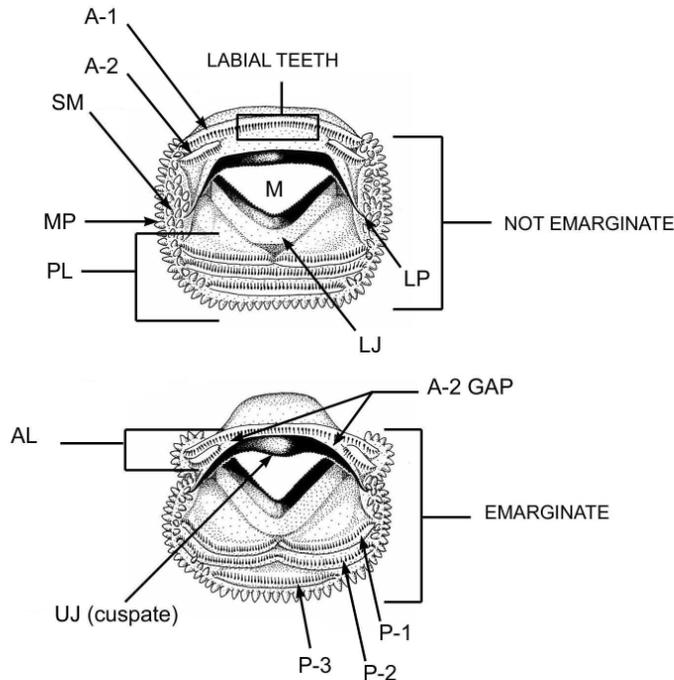
Pickerel Frog
Rana palustris

TADPOLE MOUTHPARTS

Examination of tadpole mouthparts can be useful for distinguishing some species of tadpoles. These illustrations depict the oral disc of twelve tadpoles viewed with a dissecting scope.

All illustrations by Jacqueline Grant
(reprinted from Dodd, 2004).

GENERAL TADPOLE MOUTHPART MORPHOLOGY



The objective of the Amphibian Research and Monitoring Initiative of the United States Geological Survey is to understand the status and trends of amphibian populations throughout the United States and to evaluate potential causes of population declines. A critical component of achieving this objective is to be able to identify the species of amphibians present at each sampling site. Tadpoles are considered difficult to identify by most biologists, yet monitoring tadpole populations may be more feasible than monitoring adult frogs because for many species tadpoles are present in habitats for longer periods of time than adults and thus may be the life stage encountered most often.

For many species of frogs that occur over a wide geographic range there is considerable variation in tadpole appearance and size across the range. In addition, tadpole appearance may vary over a small geographic scale due to habitat characteristics such as the amount of tannins in water or the presence of fish predators. We obtained estimates of maximum size and descriptions of tadpole appearance from a variety of literature sources (see references) and our own observations, however we recognize that for many species sufficient data are lacking. Due to this variation no field guide will present a perfect guide to the appearance of tadpoles in nature, thus it is recommended to use this guide in conjunction with other guides listed in the References section.

This guide will be continually updated with new photographs and information from ARMI sampling sites throughout the Southeastern United States. Eventually the guide will be expanded to include all 35 species of frogs found in this region. Please send comments and suggestions to address on inside front cover.

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APPEARANCE

Head

Dorsal close set eyes.

Body

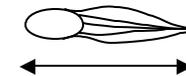
Bufo terrestris tadpoles are dark and broad . Their body is wider near the vent than the eyes. The whole body including the belly is dark with golden lines under each eye that extend diagonally upwards

Tail

The tail is short and rounded and the fins are clear with light mottling along the edges.

APPROXIMATE MAXIMUM SIZE

Small: 0.9 inches, 24mm.



SOUTHERN TOAD

Bufo terrestris



HABITAT

In many different habitats from sandy areas along lakes and ponds, to wooded hammocks and highland scrub.

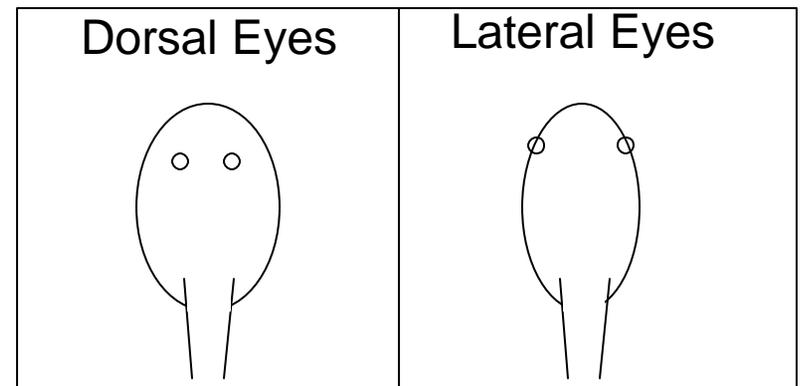
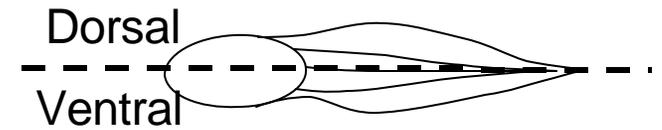
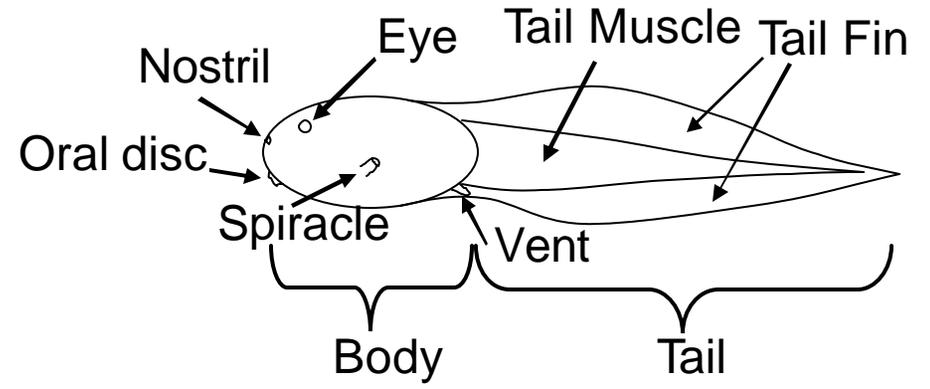
BREEDING SEASON

Spring/Summer, March-September

SIMILAR TADPOLES

Bufo quercicus, *Bufo marinus*, *Scaphiopus Holbrookii*

TADPOLE MORPHOLOGY



Tadpoles viewed from above

TADPOLES SIDE BY SIDE



American Bullfrog
Rana catesbeiana



American Bullfrog
Rana catesbeiana



Pig Frog
Rana grylio



Pig Frog
Rana grylio



Carpenter Frog
Rana virgatipes



River Frog
Rana heckscheri



River Frog
Rana heckscheri



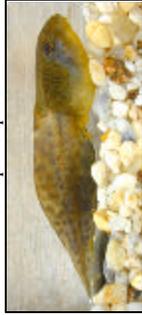
Green Treefrog
Hyla cinerea



Southern Leopard Frog
Rana sphenocphala



Southern Leopard Frog
Rana sphenocphala



Gopher Frog
Rana capito



Green Treefrog
Hyla cinerea



Bronze Frog
Rana clamitans



Bronze Frog
Rana clamitans



Gopher Frog
Rana capito



Squirrel Treefrog
Hyla squirella



Ventral view

APPEARANCE

Head

Dorsal eyes. There is a black spot over each eye and nostril. The snout curves abruptly downward.

Body

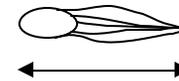
These small tadpoles are dark olive or grayish to almost black with a lighter belly. A mid-dorsal line may be apparent

Tail

The tail has a low arch and a series of distinct white bands along the tail muscle with clear to slightly spotted fins.

APPROXIMATE MAXIMUM SIZE

Small: 0.9 inches, 24mm.



OAK TOAD

Bufo quercicus



HABITAT

Shallow, semi-permanent, temporary fishless ponds. Lives in well drained uplands such as sandy pine scrublands and pine-woods.

BREEDING SEASON

Spring/Summer, April-September

SIMILAR TADPOLES

Bufo terrestris, *Scaphiopus holbrookii*



Eastern Narrow-mouthed Toad
Gastrophryne carolinensis



Eastern Spadefoot
Scaphiopus holbrookii



Oak Toad *Bufo quercicus*



Southern Toad *Bufo terrestris*



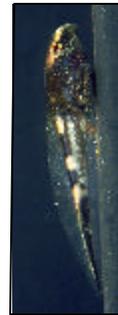
Southern Chorus Frog
Pseudacris nigrita



Ornate Chorus Frog
Pseudacris ornata



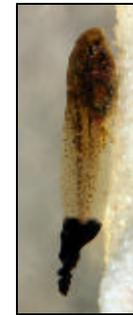
Little Grass Frog
Pseudacris ocularis



Bird voiced Treefrog
Hyla avivoca



Cuban Treefrog
Osteopilus septentrionalis



Southern Cricket Frog
Acris gryllus



Spring Peeper
Pseudacris crucifer



Barking Treefrog
Hyla gratiosa



Pine Woods Treefrog
Hyla femoralis



Cope's Gray Treefrog
Hyla chrysoscelis



Cope's Gray Treefrog
Hyla chrysoscelis

BULLFROG

Rana catesbeiana



HABITAT

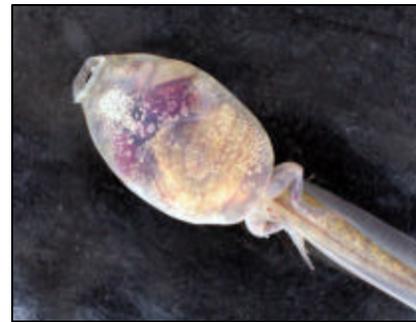
These frogs are habitat generalists and can be found in lakes, ponds, sluggish portions of streams, slow rivers and man-made drainage ponds.

BREEDING SEASON

Spring/Fall, March-October

SIMILAR TADPOLES

Rana grylio, *Rana sphenoccephala*, *Rana clamitans*



Ventral view



Dorsal view

APPEARANCE

Head

Dorsal close set eyes. Pointed beak-like snout.

Body

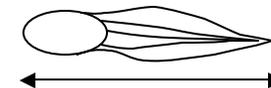
Scaphiopus holbrookii tadpoles have broad bodies that are wider near the eyes than the vent. Their bodies are dark bronze to brown in color with small close set orange spots. The belly is relatively translucent clear to yellow and it is possible to see gills and internal organs under the skin.

Tail

Short and rounded.

APPROXIMATE MAXIMUM SIZE

Medium: < 1.4 inches, 35mm.



EASTERN SPADEFOOT

Scaphiopus holbrookii



HABITAT

Ephemeral fishless ponds. These frogs inhabit forests with sandy, loose soil. They usually spend the day in underground burrows, emerging at night to feed. Tadpoles form large, conspicuous schools

BREEDING SEASON

Breeding occurs after extremely heavy rains of several inches or more which stimulates the entire population to breed. Breeding occurs in ephemeral or temporary wetlands. Tadpoles develop quickly and the metamorphs typically emerge within three weeks.

SIMILAR TADPOLES

Bufo quercicus, *Bufo terrestris*



APPEARANCE

Head

Dorsal eyes.

Body

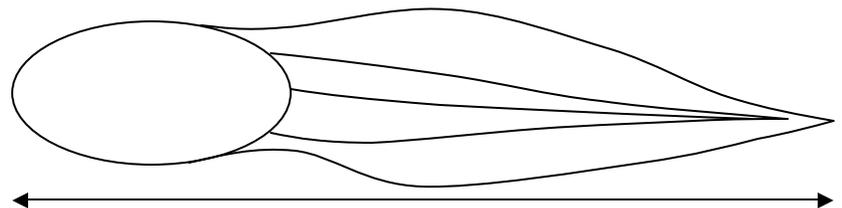
Rana catesbeiana tadpoles are extremely variable. Typical coloration of Coastal Plain populations is olive green dorsally with an immaculate creamy yellow belly. However, coloration can vary from grayish green to olive to brown and even bright green.

Tail

The body and tail may be completely covered with small black dots or the dots may be completely absent.

APPROXIMATE MAXIMUM SIZE

Large: Over 4 inches, 100mm. May take 1-2 years to develop.



PIG FROG

Rana grylio



HABITAT

These aquatic frogs are habitat generalists and live areas with emergent aquatic vegetation in lakes, marshes, rivers, ponds, swamps and streams.

BREEDING SEASON

Spring/Fall, March-September

SIMILAR TADPOLES

Rana virgatipes, *Rana catesbeiana*, *Rana clamitans*



APPEARANCE

Head

A pointed head with lateral eyes.

Body

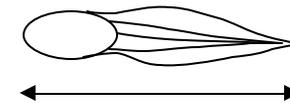
Gastrophryne carolinensis is another Southeastern species that has a very unique tadpole. They are dorso-laterally flattened such that the body looks square from above. Their bodies are dark, almost jet black. The belly is also dark with lateral whitish blotches and the intestinal coil cannot be seen through the skin.

Tail

On the tail, a lateral white stripe extends from the body and runs part way down the middle of the tail muscle. Their single spiracle is ventral to their anus, which is unlike any other Southeast species.

APPROXIMATE MAXIMUM SIZE

Small: 1.0-1.9 inches, 25-48mm.



EASTERN NARROW-MOUTHED TOAD

Gastrophryne carolinensis



HABI TAT

Shallow, grassy edges of ponds and lakes, ditches, puddles. Adults are accomplished burrowers and can be found near bodies of water in damp soil, under logs, beneath rock and in leaf litter.

BREEDI NG SEASON

Spring/Summer, March-October

SI MI LAR TADPOLES

None



APPEARANCE

Head

Dorsal eyes. Small tadpoles have light golden band around the body behind the eyes (similar to *Rana heckscheri*).

Body

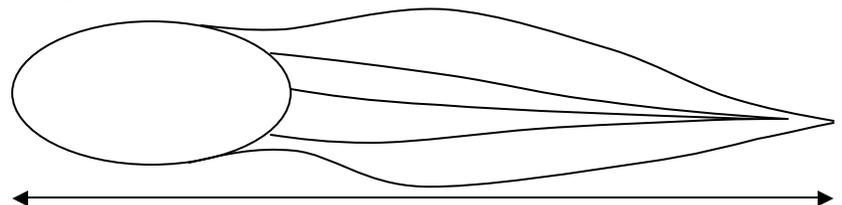
Rana grylio tadpoles are dark green to brown and slightly mottled. The throat is solid black. The belly is yellowish and may be patterned with a dark reticulated pattern. The intestinal coil is not visible through the skin.

Tai l

Tail fins may be either clear or covered with dark blotches with a longitudinal row of dark dots on the dorsal tail fin.

APPROXI MATE MAXI MUM SI ZE

Large: Over 4 inches, 100 mm.



CARPENTER FROG

Rana virgatipes



HABITAT

Lives in close association with sphagnum bogs and streams

BREEDING SEASON

Spring/Summer, April -August

SIMILAR TADPOLES

Rana grylio



APPEARANCE

Head

Lateral eyes.

Body

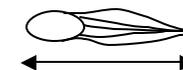
The body of a *Pseudacris ocularis* tadpole is dark olive green with scattered black spots, especially in larger tadpoles. Light dorso-lateral stripes extending from the eye to the tail may be apparent. The belly is pinkish.

Tail

The tail is long with pale ventral muscle coloration and darker dorsal muscle coloration, sometimes with a light line on dorsal tail muscle above dark line. The fins are clear with large blotches along the edge.

APPROXIMATE MAXIMUM SIZE

Small: 0.9 inches, 23mm.



LITTLE GRASS FROG

Pseudacris ocularis



HABITAT

Inhabits grassy ponds, roadside drainage ditches, flooded meadows, swamps and marsh edges.

BREEDING SEASON

Year round, peaks in early Summer

SIMILAR TADPOLES

Hyla femoralis, *Pseudacris crucifer*



APPEARANCE

Head

Dorsal eyes.

Body

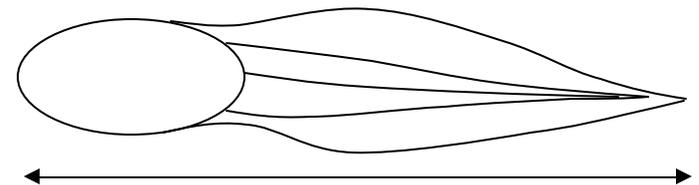
Rana virgatipes tadpoles are dark, greenish gray to almost black with a few widely scattered black spots.

Tail

The tail is not strongly spotted but along the dorsal fin is a longitudinal series of dark dots that may fuse into a solid line, and a parallel dark line along the tail muscle.

APPROXIMATE MAXIMUM SIZE

Large: 3.5 inches, 90mm.



RIVER FROG

Rana heckscheri



HABI TAT

Not only do these frogs inhabit rivers, they can also be found in floodplain swamps, ponds, lakes and marshes associated with rivers. Tadpoles can be seen swimming in large schools.

BREEDI NG SEASON

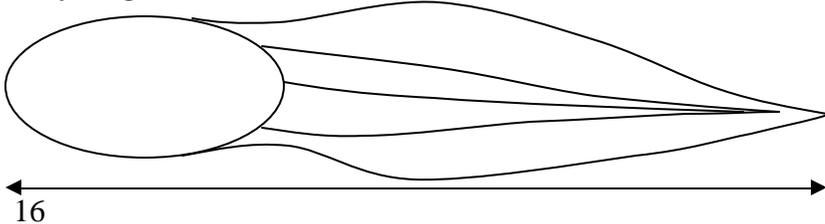
Spring/Summer, April-August

SIMI LAR TADPOLES

Small tadpoles: *Rana grylio*, large tadpoles: None

APPROXI MATE MAXI MUM SI ZE

Very Large: Over 4 inches, 25-100 mm.



APPEARANCE

Head

Lateral eyes.

Body

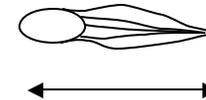
Pseudacris ornata tadpoles are reddish brown with light dorso-lateral lines extending from snout along the length of the body. They have a light belly and a clear throat.

Tai l

The tail has a highly arched dorsal fin. Smaller specimens have a bi-colored tail muscle (darker dorsally than ventrally) that becomes more uniformly pigmented as the tadpole grows larger.

APPROXI MATE MAXI MUM SI ZE

Small: 1.0 inch , 25 mm.



ORNATE CHORUS FROG

Pseudacris ornata



HABITAT

This species can be found in wet prairies, roadside ditches, cypress swamps, pine flatwoods and shallow temporary bodies of water with extensive emergent vegetation.

BREEDING SEASON

Winter/Spring, December-March

SIMILAR TADPOLES

Pseudacris crucifer, *Pseudacris nigrita*, *Hyla gratiosa*



APPEARANCE

Larger tadpoles are very distinct and do not resemble any other tadpoles in the Southeast.

Head

Dorsal reddish eyes. Small tadpoles (~1 inch) have a light golden band around the body just behind the eyes (similar to *Rana grylio*).

Body

Small *Rana heckscheri* tadpoles (~ 1 inch), have a dark, almost black body. As the tadpoles grow their color lightens becoming a deep olive

Tail

The tail muscle is bi-colored being darker on top and lighter below. The fins start out clear and become opaque white edged with a dark black outline.

SOUTHERN LEOPARD FROG

Rana sphenocephala



HABITAT

This species is a habitat generalist found in almost any body of water including ponds, lakes, ditches, streams, river edges and even brackish water.

BREEDING SEASON

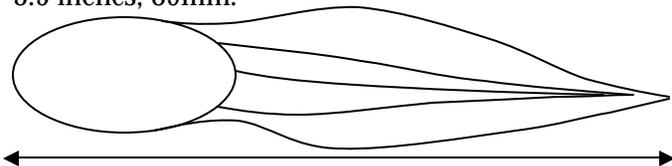
Year round, peaks in early Spring

SIMILAR TADPOLES

Rana capito, *Rana clamitans*, *Rana grylio*

APPROXIMATE MAXIMUM SIZE

Large: 3.5 inches, 89mm.



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APPEARANCE

Head

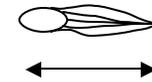
Lateral eyes.

Body

Pseudacris nigrita tadpoles are dark brown with pale dorso-lateral stripes and a light coppery belly.

APPROXIMATE MAXIMUM SIZE

Small: 0.7 inches, 18mm.



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SOUTHERN CHORUS FROG

Pseudacris nigrita



HABITAT

Inhabits pine flatwoods, wet meadows, roadside ditches, moist wetlands, flooded fields and other open habitats.

BREEDING SEASON

Winter/Spring, January-April

SIMILAR TADPOLES

Pseudacris crucifer, *Pseudacris ocularis*, *Pseudacris ornata*,



APPEARANCE

Head

Dorsal eyes. Tadpole usually possess a vertical white line down the middle of the snout between the nostrils. This can be a key identifying feature.

Body

Body color of *Rana spehenocephala* tadpoles is variable. They can be light or dark, usually an olive green with distinct black mottling. The belly is a light pink and the intestinal coil may be seen under the skin.

Tail

The tail fin has a low to medium arch, and the fins range from being clear to covered with large dark spots.

GOPHER FROG

Rana capito



HABITAT

Ephemeral fishless ponds, adults inhabit the burrows of Gopher Tortoises (*Gopherus polyphemus*) in sandy scrub areas.

BREEDING SEASON

Year round, but only in response to heavy rainfall

SIMILAR TADPOLES

Rana sphenoccephala



APPEARANCE

Head

Lateral eyes. The snout has a square appearance when viewed from above.

Body

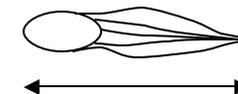
Pseudacris crucifer tadpoles can be dark greenish brown to almost transparent with vague stippling.

Tail

They have a medium sized tail, mottled tail muscle same color as body, but with more pattern. The fins may be clear or with blotches.

APPROXIMATE MAXIMUM SIZE

Small: 1.2 inches, 30mm.



SPRING PEOPER

Pseudacris crucifer



HABI TAT

This secretive frog is seldom seen except in breeding season. It inhabits woodlands, marshes and bogs, near small temporary or semi-permanent ponds.

BREEDI NG SEASON

Winter, October-March.

SI MI LAR TADPOLES

Pseudacris ornata, *Pseudacris ocularis*



APPEARANCE

Head

Dorsal eyes.

Body

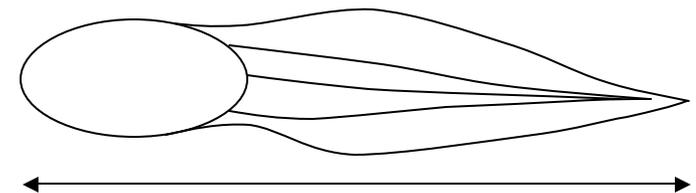
Rana capito tadpoles have deep bodies that are overall greenish and lack spots. The belly is cream to yellow and the intestinal coil is not visible.

Tai l

The tail is long with a medium sized arch of the dorsal fin. Fins can be either clear or with spots.

APPROXI MATE MAXI MUM SI ZE

Large: 3.5 inches, 90 mm.



BRONZE FROG

Rana clamitans



HABITAT

This secretive, aquatic frog is a resident of ponds, swamps, streams, river edges and lake shores.

BREEDING SEASON

Spring/Summer, April-August

SIMILAR TADPOLES

Rana catesbeiana, *Rana sphenocephala*, *Rana grylio*



APPEARANCE

Although it is a hylid, this tadpole looks remarkably like a ranid.

Head

Dorsal eyes.

Body

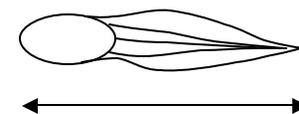
Acris gryllus tadpoles are light olive to dark beige with a pinkish belly.

Tail

The tail is long with a low arch and a row of dark spots along the dorsal tail muscle. The tail often has a dark “ink stained” tip. Although this is good identifying feature, it is not uncommon for the tail tip to lack this distinct coloration.

APPROXIMATE MAXIMUM SIZE

Medium: 1.5 inches, 38mm.



SOUTHERN CRICKET FROG

Acris gryllus



HABITAT

A habitat generalist found in almost every aquatic habitat including ponds, lakes, bogs, marshes, swamps and rivers.

BREEDING SEASON

Year round, peaks in Summer, April-September

SIMILAR TADPOLES

Small ranid tadpoles



APPEARANCE

Head

Dorsal eyes.

Body

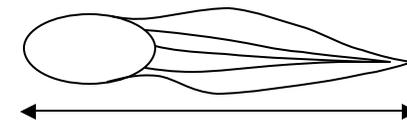
Rana clamitans tadpoles may be dark or pale greenish brown to gray and densely speckled with a light cream colored belly. These tadpoles are large, but not deep bodied.

Tail

The tail is fairly elongated with a low arch and fins can be clear or speckled.

APPROXIMATE MAXIMUM SIZE

Medium: 1.2-2.5 inches, 30-65mm.



GREENTREEFROG

Hyla cinerea



HABI TAT

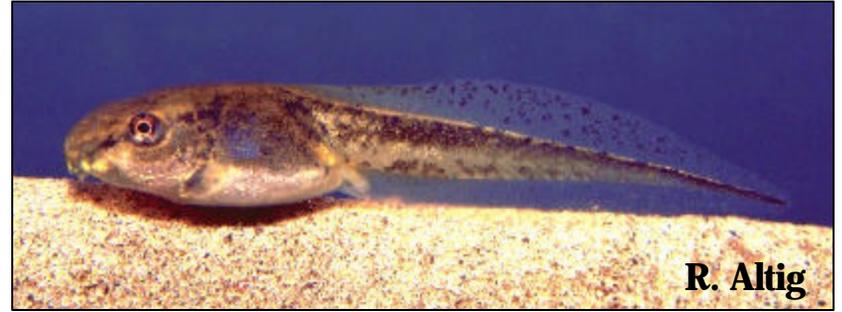
Found in many aquatic habitats such as swamps, lakes, streams and ponds with emergent vegetation, typically in permanent aquatic habitats.

BREEDI NG SEASON

Spring/Summer, March-September

SI MI LAR TADPOLES

Hyla chrysoscelis, *Hyla squirella*, *Hyla femoralis*



APPEARANCE

Head

Lateral eyes.

Body

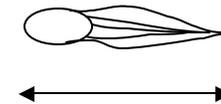
Osteopilus septentrionalis tadpoles have a rounded heavily pigmented body with a transparent belly making the intestinal coil visible.

Tai l

The tail fins are flecked with dark mottling.

APPROXI MATE MAXI MUM SI ZE

Medium: 1.0-1.25 inches, 26-32mm.



CUBAN TREEFROG

Osteopilus septentrionalis



HABITAT

This is an invasive non-indigenous species in Florida. Found in natural areas in parts of its introduced range, as well as in retention ponds, drainage ditches and other areas associated with human habitation.

BREEDING SEASON

Spring/Summer, April-August

SIMILAR TADPOLES

Hyla cinerea, *Hyla squirella*



APPEARANCE

Head

Lateral eyes. A key feature for identification of this tadpole is a pale yellow stripe on either side of the head that stretches from the nostril to the eye.

Body

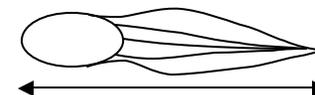
Hyla cinerea tadpoles are olive-green.

Tail

The tail may be spotted with dark or light spots and can be washed with red similar to *Hyla chrysoscelis* and *Hyla femoralis*.

APPROXIMATE MAXIMUM SIZE

Medium: 1.6 inches, 40mm.



SQUIRREL TREE FROG

Hyla squirella



HABITAT

A common “backyard” species found in a variety of habitats in their range including woodlands, pasture ponds, gardens and roadside ditches.

BREEDING SEASON

Spring/Summer, April-August

SIMILAR TADPOLES

Hyla chrysoscelis, *Hyla cinerea*



APPEARANCE

Head

Lateral eyes. There is a white or reddish line between the eyes and extending from each eye to the nostrils, forming a triangle on the top of the head.

Body

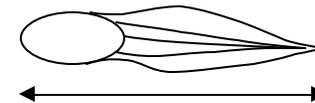
The body of a *Hyla avivoca* tadpole is mostly black with a darkly pigmented throat.

Tail

The tail is also dark with light silver to reddish bands dorsally.

APPROXIMATE MAXIMUM SIZE

Medium: 1.6 inches, 40mm.



BIRD-VOICED TREE FROG

Hyla avivoca



HABITAT

In permanent wooded swamps and along creeks and rivers.

BREEDING SEASON

Spring/Summer, April-July.

SIMILAR TADPOLES

None



APPEARANCE

Head

Lateral eyes.

Body

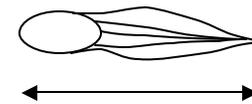
This is an extremely variable and difficult to identify tadpole. Color ranges from brown to green. The belly is yellow with a black center.

Tail

The tail is long and deep with a flagellum. Fins are clear or with few dark flecks.

APPROXIMATE MAXIMUM SIZE

Small: 1.25 inches, 32 mm.



BARKING TREE FROG

Hyla gratiosa



HABITAT

Large, deep, fishless ponds.

BREEDING SEASON

Spring/Summer, March-August

SIMILAR TADPOLES

Pseudacris ornata



APPEARANCE

Head

Lateral eyes.

Body

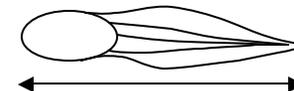
Hyla chrysoscelis tadpoles are extremely variable in coloration and pattern. Their color ranges from dark tan to gray to golden. The belly is cream colored and the intestinal coil is visible.

Tail

The tail is long with a high tail fin and prominent flagellum. It can be clear or mottled with dark blotches and is often, but not always washed with orange or red coloration similar to *Hyla femoralis* and *Hyla cinerea*.

APPROXIMATE MAXIMUM SIZE

Medium: 1.25-1.75 inches, 32-45mm.



COPE'S GRAY TREEFROG

Hyla chrysoscelis



HABITAT

Typically breeds in fishless habitats, including wet woodlands, ponds and swamps.

BREEDING SEASON

Spring/Summer, April-August

SIMILAR TADPOLES

Hyla cinerea, *Hyla femoralis*, *Hyla squirella*



APPEARANCE

Head

Lateral eyes.

Body

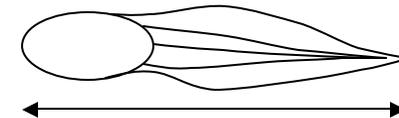
Small *Hyla gratiosa* tadpoles (<45mm) are all over lightly colored green to greenish yellow with a clear body and a dark saddle spot midway down the dorsal tail muscle. Larger tadpoles lose the dark saddle and are transparent yellow.

Tail

The tail is long with clear fins and tail muscle and a highly arched dorsal fin that extends anteriorly to the eyes.

APPROXIMATE MAXIMUM SIZE

Medium: 2-2.75 inches, 50-70mm.



PINE WOODS TREEFROG

Hyla femoralis



HABITAT

Typically breeds in ephemeral fishless habitats including pine flatwoods, forested or shrub wetlands, cypress swamps, lakes, ponds and wet prairies.

BREEDING SEASON

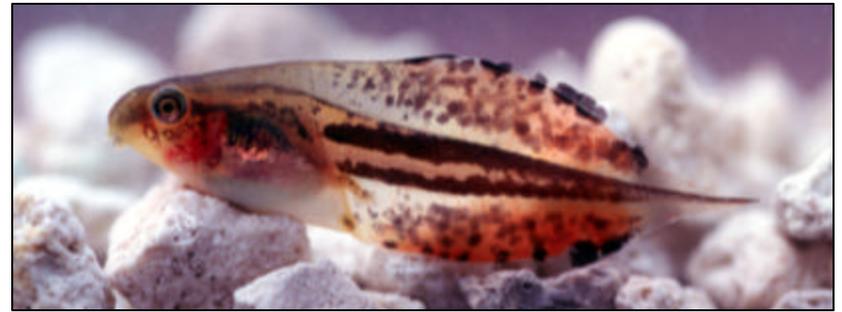
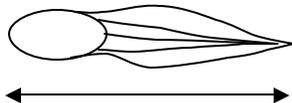
Spring/Summer, April-August.

SIMILAR TADPOLES

Hyla andersonii, *Hyla cinerea*, *Hyla chrysoscelis*, *Pseudacris ocularis*

APPROXIMATE MAXIMUM SIZE

Small: 0.8-1.5 inches, 20-40 mm.



APPEARANCE

Head

Lateral eyes.

Body

Hyla femoralis tadpoles have dark bodies, olive to greenish black, the sides and throat are purplish and the center of the belly is yellow.

Tail

The tail is deep with wide fins and a long flagellum. A distinct pale stripe runs laterally down the middle of the tail muscle starting at the body and extending halfway or more down the length of the tail. The dorsal tail fin extends anteriorly onto the head. The upper and lower tail fins are mottled with large dark blotches and the fins are often washed with bright red coloration similar to *Hyla chrysoscelis* and *Hyla cinerea*.